c1) an imaging means (20a) for imaging at least one section of said workpiece (5) in which at least one process site (4) is located;

c2) an image processing means (21); and

c3) an image memory (22); and whereby

d) said image processing means (21) compares a pixel map imaged by said imaging means (20a) with programmed process site pixel maps memorized in said image memory (22) and outputs said identification signal (ES) as to identification of a programmed process site when agreement is established between said imaged pixel map and a memorized pixel map of said process sites.

37. The process system as set forth in claim 36, characterized in that said imaging means (20a) is mounted on said tool (7).

38. The process system as set forth in claim 36, characterized in that said imaging means (20a) is arranged integrally in said tool (7).

39. The process system as set forth in claim 36, characterized in that said imaging means (20a) is arranged in said process station (1) and images at least part of said process station (1) in which at least one workpiece (5) is located.

40. The process system as set forth in claim 36, characterized in that said imaging means (20a) is a camera.

41. The process system as set forth in claim 40, characterized in that said camera is a video camera or an infrared camera.

42. The process system as set forth in claim 37, characterized in that said process tool (7) comprises a light source which illuminates said process station (1) or a part thereof ahead of said process tool (7).

43. The process system as set forth in claim 42, characterized in that said image processing means (21) compares said image data of said pixel map imaged by said imaging means (20a) to said image data of said pixel map memorized in said image memory (22) with the aid of a logic (FL).

44. The process system as set forth in claim 43, characterized in that said logic (FL) is a fuzzy logic.

45. The process system as set forth in claim 36, characterized in that said process tool (7) is a screw driver or nut runner and said process parameters programmed by said process parameter programming means (8) are a programmed torque and/or programmed torsion angle.

46. The process system as set forth in claim 36, characterized in that said workpiece (5) is a motor vehicle or part of a motor vehicle, said process site (4) being predefined assembly sites on said motor vehicle or on said part, said process station (1) being a predefined station of an assembly line and said process relates to assembling items to predefined assembly sites.

47. The process system as set forth in claim 36, characterized in that an enabling means is provided which does not enable processing by said process tool (7) with said programmed process parameters until said recognizing means (20) has identified a programmed process site (4).

48. The process system as set forth in claim 36, characterized by a counter means for counting how often said recognizing means (20) identifies a process site and how often processing by said process tool (7) with said preset process parameters is implemented at said process site (4).

49. The process system as set forth in claim 36 comprising a means for sensing actual parameters during said process operation at each process site (4) and a comparator means (10) for comparing said sensed actual process parameters to said design process parameters and for controlling said process tool (7) so that in said process operation said actual and said design process parameters are brought into agreement.

50. A system for processing a workpiece (5) located in a prodefined process station (1) at a plurality of process sites (4) with programmed process parameters, comprising at least one process tool (7) for processing said workpiece (5) at said programmed process sites (4) and a recognizing means (200) for identifying whether said process tool (7) is located in said process station (1),

characterized in that

said recognizing means 200 is designed

- to identify said location of said process tool (7) in said process station (1);
- to identify said location of said workpiece (5) in said process station (1); and
- to determine therefrom the location of said process tool (7) relative to each process site (4); whereby

said process tool (7) is provided with at least one marking (202) and

said recognizing means (200) comprises an imaging means (201) for imaging said process station (1) and at least a section of said workpiece (5), an image processing means (203) identifying the location of said process tool (7) relative to said workpiece (5) by processing the image of said at least one marking (202) and of said at least one section of said workpiece (5), and a means (7) for setting said tool (7) to said process parameters on the basis of the position of said process tool (7) relative to said process site (4).

51. The process system as set forth in claim 50, characterized in that said imaging processing means (203) analyze movement maps of said process tool (7) in establishing whether a predefined number of process operations at each of said process sites (4) has been implemented.

52. The process system as set forth in claim 50, characterized in that an enabling means does not enable said identified process tool (7) at a programmed process site (4") until said recognizing means (200) has identified a predefined number of process operations at a previous process site (4).

53. The process system as set forth in claim 50, characterized in that said recognizing means (200) senses the speed at which said workpiece (4) is moved on the basis of time-tracking the change in position of one or more process sites (4).

54. The process system as set forth in claim 50, characterized in that said recognizing means (200) identifies an angular orientation of said process tool (7) relative to a programmed process site (4).

55. The process system as set forth in claim 52, characterized in that said process tool (7) comprises a set of process units (71-74) including a predefined orientation, said enabling means enabling said process units at a subsequent process site only when a counter means of said recognizing means (200) has established that said process units (71-74) have assumed a predefined number of orientation locations at a previous process site.

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56. The process system as set forth in claim 50, characterized in that said workpiece (5) is a motor vehicle or part of a motor vehicle, said process site (4) is a predefined assembly site on said motor vehicle or on said part, said process station (1) is a predefined station of a motor vehicle assembly line, said process tool (7) comprises one or more screw drivers or nut runners, and said programmed process parameters are bolting parameters of said one or more screw drivers or nut runners.

57. The process system as set forth in claim 56, characterized in that said bolting parameters comprise a torque and/or a torsion angle of said one or more screw drivers or nut runners.

58. The process system as set forth in claim 50, characterized in that said recognizing means (200) comprises a workpiece memory (204) for memorizing workpiece dimensions, said image processing means (204) determines the location of a reference coordinate point of said workpiece image (51) and determines the location of said tool marking (2902) in a system of coordinates (x, y) fixed relative to said process station (1) and determines by analyzing the spacings between said coordinates of said marking and each process site (4) with reference to said workpiece dimensions held in said workpiece memory (204).